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cc:

Subject: Calpuff Sensitivity Tests-ND Increment Modeling

I was able to replicate your May 24, 1999 Calpuff 5(1997 version) modeling results for two different sources ( Coal Creek Station and Antelope Valley) for 1991 and 1994 meteorology. In fact the results were identical out to 4 decimal points...so we can safely conclude that our two modeling systems are working properly.

I have had a little more trouble rerunning the same input files through the more recent "guideline" version of Calpuff that you recently recompiled with the Lahey '95 fortran compiler (Calpufnd-2000). The newer version runs but doesn't give the same answer as Calpuff 5. In fact, as shown in the attached table, the results are significantly different with maximum concentrations ranging between 4 and 48 percent higher. To see if the problem was in Calmet, I reran the "guideline" Calpuff with the 1997 version of Calmet and got essentially the same results, thus the problem seems to be in Calpuff.

I think the differences could be due to either:

- 1) I screwed up the Calpuff input file somewhere and the inputs are not really identical
- 2) There really are differences between the 1997 version of Calpuff 5 and the current guideline version (different default values built into the model ?).
- 3) When the model was recompiled a "glitch" was introduced into the software.

I think if we are both going to be using Calpuff, we should be sure that any differences are related to modeling inputs and not the model itself. I have attached the Calpuff input files I used for the Calpuff5 runs and the Calpuffnd-2000 runs. Does anything jump out at you as to why the two results are so different?



Avs4org.inp modtest.wpd av5om.inp